REMARKS/ARGUMENTS

This letter is responsive to the Office Action mailed on May 13, 2008.

Claims 1, 3-10 and 12-26 are currently pending in the application.

Claims 1, 3, 4, 10, 12, 13, 20, 22 and 23 have been amended to better define the claims of the present invention, to more clearly point out and distinctly claim the present invention and to make minor corrections of a clerical nature.

Claims 1, 3-10, and 12-26 rejected under 35 U.S.C. §112

The Examiner has rejected claims 1, 3 to 10 and 12 to 26 under 35 U.S.C. §112 for failing to point out and distinctly claim the subject matter that the Applicant regards as the invention.

Without conceding the propriety of the rejection, Applicant has amended independent claims 1, 10 and 20 to more clearly point out and distinctly claim the subject matter that the Applicant regards as the invention. In particular, the claims have been amended to specify that the identified contextual state is used in determining whether a word is associated with an expression.

The Applicant submits that this feature, in conjunction with all of the other features clearly claimed in claims 1, 10 and 20 now unambiguously point out and precisely claim the subject matter which the Applicant regards as the invention.

The Examiner has also rejected claims 1, 10 and 20 as indefinite for the use of the phrase "adapted to". Specifically, the Examiner considers the claims indefinite for using optional language. The Applicant has amended claims 1, 10 and 20 to remove "adapted to" and submits that these claims are now sufficiently definite.

Claims 1, 3-10 and 12-19 rejected under 35 U.S.C. §103(a)

The Examiner has rejected claims 1, 3 to 10 and 12 to 19 under 35 U.S.C. §103(a) as being unpatentable over Alleva et al. (U.S. Patent No. 5,970,449) and further in view of Hummel et al. (U.S. Patent No. 7,020,601). The Examiner asserts that the Alleva et al. reference teaches all of the features of the above noted claims with the exception of at least one element, which is taught in Hummel et al. Specifically, the Examiner states that, as to independent claims 1 and 10, Hummel et al. teaches dynamically identifying the contextual state of a word that Alleva et al. does not explicitly teach, but which nonetheless could obviously have been incorporated into Alleva et al.

The Applicant respectfully submits that the Examiner has failed to establish a *prima facie* basis for rejection of these claims under §103. To establish a *prima facie* case of obviousness, MPEP §2143 requires that the prior art reference(s) must teach or suggest <u>all</u> of the claimed limitations (see *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). In particular, "[a]ll <u>words in a claim</u> must be considered in judging the patentability of that claim against the prior art": *In re Wilson,* 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) (emphasis added). The Applicant submits that the Examiner has failed to establish that the cited references alone or in combination teach or suggest <u>all</u> of the claim limitations of independent claims 1 and 10.

The Applicant submits that the subject matter of independent claims 1 and 10 is not obvious in view of Alleva et al. in combination with Hummel et al. Specifically, the Applicant submits that:

(1) the Alleva et al. and Hummel et al. references do not disclose dynamically identifying a contextual state;

(2) the Alleva et al. and Hummel et al. references do not disclose determining whether a word is associated with the expression by utilizing the contextual state.

(1) References do not teach dynamically identifying a contextual state

The Examiner has conceded that the Alleva et al. reference does not disclose dynamically identifying the contextual state of *a word* and asserts that this is taught in Hummel et al. Applicant respectfully submits that the Examiner has misinterpreted claims 1 and 10 which read "dynamically identifying a contextual state." The distinction is clearly illustrated in the following excerpt from page 12, lines 11 to 14 of the present application:

> Referring now to FIG. 4B the context of formatting system 10 dynamically changes as words are read from word list 15. The context of formatting system 10 depends in part on whether a particular word just read is considered to be "significant" or not.

In the example system described in the application, two context states are used, NoCheck and WordInNumber, with specified conditions for the system to transition between context states. The translation of words from the word list into formatted words or expressions on the formatted word list <u>depends</u> on the <u>context state</u> of the system. For example, consider two sequences of words that could appear on the word list, "several centimeters" and "five centimeters." In one case, it is desired to have the formatted word list to contain the expression "several centimeters," without any change, while in the other case the formatted word list should contain the expression "5 cm."

The context state of the example system begins in the NoCheck state. The context state of the system is then dynamically determined in part by the word just read. In the first case, when "several" is read, it will be passed on to the formatted word list and the context state of the system will remain in the NoCheck context state and "centimeters" will subsequently be translated as "centimeters," i.e. there will be no change. The formatted word list will contain "several centimeters." In the second case, however, when "five" is read, the context state of the system will change to WordInNumber and

"centimeters" will subsequently be translated as "cm." The words "five centimeters" will ultimately be translated into the expression "5 cm" on the formatted word list.

The Applicant submits that the references to contexts and types, cited in Hummel et al. reference by the Examiner, do not teach the dynamic determination of a contextual state since:

(a) the "placeables" of Hummel et al. are explicitly context free;

(b) the "contexts" of the Hummel et al. refer to the entire document as a whole and do not dynamically change;

(c) the determination of types in Hummel et al. is performed after expressions ("tokens") have been assembled.

Hummel et al. is directed to a translation system where so-called "placeables" are semi-automatically inserted into a translated text to assist the translator by not requiring the translator to retype information that does not need to be translated. This concept is most clearly illustrated in the following excerpt from column 3 lines 35 to 44 of Hummel et al.:

> Placeables are often re-used "as is" in the translated text or in a converted form. Examples of such placeables are: proper nouns, titles and names, dates, times, [...] information that will not be translated but, rather, converted without knowledge about the context. [emphasis added]

The placeables of Hummel et al. are terms that require no consideration of the context (i.e. surrounding words, phrases). They are terms that may be unintelligibly translated as part of a machine assisted human translation (MAHT) system.

Further, the contexts referred to in column 4 lines 3-10, to which the Examiner makes reference, teaches the consideration of the context of the entire document when determining placeables:

> For example, a placeable could be determined by specialized dictionaries
> and/or the context or environment information <u>of the entire information</u>
> <u>designated for translation</u>, e.g., data in the chemical environment, automotive
> environment, music lyrics, legal environment. [emphasis added]

The context referred to by Hummel et al. is a property of the entire document (e.g.
music lyrics) and does not dynamically change as words are read.

Lastly, the Examiner has made reference to where Hummel et al. teaches determining
the type of a placeable. Determining the type of a placeable in Hummel et al. comprises
simply identifying the placeable as a date, time, link etc. In contrast, the context states
of the present invention, as described above, are used to determine whether a word
being read is significant or not and to determine whether a word is associated with an
expression. This distinction is most clearly illustrated in the following excerpt from
column 7 lines 43 to 48 of Hummel et al.:

> The determination of a placeable may be a one or two step method using a
> rule-based system/a finite state system. The one-step method may also be
> accomplished by determining the type using a rule-based system that views
> the entire token. For example: is this token a date, is this token a proper noun,
> is this token a hyperlink?

Determining whether a token of a text is a date has no relation to the dynamic
determination of the contextual state. Considering the contextual state allows complex
expressions to be accurately assembled such that when processed the formatting
module may generate a desired representation. Hummel et al. discloses identifying an
element of a token as a placeable then identifying the type of the placeable. Hummel et
al. does not teach how this placeable or type identification may occur and certainly does
not teach the determination of context states in assembling expressions ("placeables").

2. References do not teach using the dynamic state to assemble expressions

In the amended claim 1, the contextual state is utilized to determine whether a word is associated with an expression. As illustrated in an example above, once the word "five" is read, the contextual state changes from the NoCheck state to the WordInNumber state. In the WordInNumber state, the system reads the word "centimeters" and recognizes that this word belongs to the expression.

The Examiner has conceded that the determination of contextual states is not present in the Alleva et al. reference. Further, the Applicant submits that the use of contextual states in determining whether a word is associated with an expression is also not taught in Hummel et al. Specifically, Hummel et al. assumes that a placeable, which represents the closest approximation of the expressions of the present invention, can be identified according to undisclosed "rule-based query and/or with the use of finite state tools such as look-up tables." Hummel et al. is directed to the use of placeables as an aid to translators and does not detail how these placeables may be identified, but rather appears to consider it to be known in the art.

In contrast, the subject matter of the present claims are directed to the determination of whether a word is associated with an expression, and to this end a novel and non-obvious approach of utilizing an identified contextual state has been claimed. Accordingly, the Applicant submits that the Alleva et al. and Hummel et al. references do not disclose determining whether a word is associated with an expression by utilizing an identified contextual state

In view of the foregoing, the Applicant respectfully submits that the subject matter claimed in independent claims 1 and 10 is not obvious in view of the Alleva et al. and Hummel et al. references. It is further submitted that claims 3 to 9 and claims 12 to 19, recite additional patentable features that are neither taught nor suggested by the Alleva

et al. and Hummel et al. references either alone or in combination. Withdrawal of the Examiner's rejection in respect of claims 1, 3 to 10 and 12 to 19 is respectfully requested.

The Applicant notes that while the Examiner has not explicitly rejected claims 20 to 26, the relevance of Alleva et al. and Humnel et al. to these claims has been discussed on pages 13 to 17 of the Office Action. The Applicant submits that claims 20 to 26 are not obvious in view of the Alleva et al. and Humnel et al. references for the reasons discussed above in respect of claims 1, 3 to 10 and 12 to 19.
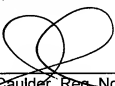
References Made of Record and Not Relied Upon

The Applicant has briefly reviewed the other references cited by the Examiner. The Applicant respectfully submits that these references do not recognize the problem solved by the present invention and do not describe or even suggest the present invention. The Applicant respectfully submits that they are not relevant to the patentability of the claims of the present invention.

In view of the foregoing, the Applicant respectfully submits that the application is now in condition for allowance. Allowance of the application is respectfully requested. If the Examiner believes that a telephone interview would expedite allowance of the application, the Examiner is respectfully requested to contact the undersigned at (416) 957-1680.

Respectfully submitted,

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